

Title (en)
SYSTEM AND PROCESS FOR PURIFYING WASTE WATER WHICH CONTAINS NITROGENOUS COMPOUNDS

Title (de)
SYSTEM UND VERFAHREN ZUR REINIGUNG VON STICKSTOFF ENTHALTENDEM ABWASSER

Title (fr)
SYSTEME ET PROCEDE DE PURIFICATION D'EAUX USEES CONTENANT DES COMPOSES AZOTES

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Abstract (en)
[origin: WO9325485A1] The invention relates to a system and a process for purifying nitrogenous waste water by biological nitrification and denitrification. The system comprises at least two essentially separated reactor chambers, a liquid supply (4) and a liquid discharge (5). The first, aerated reactor chamber (1) is provided at the top with an overflow to the second, oxygen-depleted reactor chamber (2). The oxygen-depleted reactor chamber (2) is divided at the top into a degassing chamber (7) and a settling chamber (8) having an overflow (9) to the liquid discharge. The first reactor chamber is provided with an air supply (11, 18) and an air discharge (12) located above the supply. The first reactor chamber may be partly divided into a riser (14) and a downcomer (15) which allow, as a result of the air supply, mass circulation to take place in the aerated reactor chamber. According to the process, waste water with bacterial sludge on a carrier circulates alternately through the oxygen-depleted and the aerated reactor chambers, whereafter it is separated from the sludge and the sludge is returned to the reactor.

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